An Attributional Analysis of Teacher Expectation in Secondary Schools

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Expectancy Effect and Performance : An Integrative Review

Abstract

A careful examination of the literature on educational research in this paper has indicated that teacher expectancy effect on children learning and school performance has been researched with great vigor and energy applying methods varying from observational to experimental. Teachers' expectation influences students' performance is still a controversial issue but its relationship with students' performance can not be ignored. Teachers' expectation leads to the students' performance and students react to their differential treatment is also demonstrated in numerous studies. It was also reported that teachers' expectation leads to students performance more than students performance helps in forming teachers' expectation. Evidence of perceptual bias has got consistent support. Despite a sharp criticism of self fulfilling prophecy hypothesis it is still concern of scholars. It was also found that expectancy effect is not restricted only to the classroom context it has its application in work setting also. Thus, it can be concluded that this area has placed itself in a very respectable position in the literature of education research and a clear trend of advancement at theoretical, methodological, and applied level can be seen. Implications of the findings may effectively be utilized for the classroom effectiveness and even effective implementation of developmental programs and the allround development of the people.

Expectancy Effect and Performance : An Integrative Review

In the context of teacher expectations and students' performance there are three components which are important to be examined. The first is the performance of the student, second is the student, and finally the teacher.

Performance of the student depends on so many factors. If we treat student's intellectual capacity as ability and effort as motivation in line of Vroom (1964) we may say that Performance = Motivation X Ability (1). Studies testing this equation have found evidence in favor of other models also (Singh & Bhargava, 1985, 1986; Singh, Bhargava, & Norman, 1987) which is a different issue altogether.

Student is another aspect in this context. That is apart from one's intellectual and cognitive capacities some overt components such as appearance, race, socio-economic-status, caste, parents profession, total personality, and relationship and behavior with external world may also play a role in improving performance of a student. Theoretically, these variables should not have relationship with academic performance but reality is that students characteristics, relationship with teachers, and behavior with others play a substantial role in enhancing performance (Finn, 1972; Jussim, 1989; Rist 1972).

Teacher is a guide and helper of a student and role of a teacher on improving performance of the student is very important. It can be studied from different perspectives. Does teachers' expectation influence students' performance is still a controversial issue in the literature but its relationship with students' performance can not be ignored? To explain and understand this relationship in classroom and other contexts a large number of experimental and

correlational studies have been performed. As a result of that many concepts and terms have been used by scholars of different disciplines. They are briefly covered in this paper.

A careful examination of literature on educational research indicates that teacher expectancy effect on children' learning and school performance has been researched with great vigor and energy applying methods varying from observational to experimental. Rosenthal and Jacobson's (1968) study is often referred as the birth place of the scientific investigation on teacher expectancy effect (Dusek, 1985), though phenomenon was not new. After this study significant efforts were made to examine its effects in the areas of educational, social, and developmental psychology.

Expectancy and Experimental Psychology

It was Ebbinghaus (1985) who first scientifically demonstrated that early data returns become bases for the self fulfilling prophecies. In clinical field also it was reported that hypnotized patients responded as they were expected to respond (Moll, 1898). Even Pavlov's early experiments (Gruenberg, 1929) have shown that experimenter's expectation affected learning of the subject. Resenzweig (1933) not only talked about the anticipated unconscious experimenter bias but also has foresighted about the social psychology of the psychological experiment which led to the new directions on paradigms in transition (Rosnow, 1981).

Expectancy and Psychology of Learning

Historically, Tolman (1959) should be the originator of expectancy, particularly in the context of learning theories, though the use of term such as set (Lewin, 1926; Gibson, 1941) indicates prior use of expectancy related term. In Tolmanian's framework expectation and readiness were the two main components of cognition,

though he used numerous other constructs such as means-end-expectation and means-end-readiness. MacCorquodale and his associates (Estes, Koch, MacCorquodale, Meehl, Mueller, Schoenfeld, & Verplanck, 1954) examined the merits of Tolman's concepts which ultimately influenced him to revise his original theory , particularly in the area of animal learning. A careful readings of these theories reflect that the learning theorists have used more associationist rather than expectancy language (Hilgard & Bower, 1966) despite a visible role of expectancy factors in classical conditioning (Nelson & Ross, 1974), instrumental conditioning (Nelson, 1976), and social learning (Bandura, 1977).

Expectancy and Personality and Social Psychology

Use of expectancy related concepts in personality and social psychology was opened up by Lewin (1951) in the areas of conflict resolution, decision making, and level of aspiration. In fact it was Rotter (1954) who used expectancy term in a systematic manner by defining several types of expectancies, analyzing situational determinants and generalization of expectancies, relating expectancies with other variables, and providing an operational definition of expectancy. Later on the concept has been extensively used in organizational psychology (Vroom, 1964), decision making process and subjective expected utility (Edwards, 1954), attitudes (Fishbein & Ajzen, 1975), and interpersonal perception (Gibson, 1941).

Scientific Recognition of Expectancy Effect: Pygmalion Experiment

The background of Pygmalion experiment as reported now by the Rosenthal (1985) seems to be intuitive and natural response of a scientist engaged on understanding a particular phenomenon. If one could find an impact of expectancy effect on experiments of rats

then it should certainly not be farfetched with students. Perhaps against this background and her interest in the area of teacher expectation Lenore Jacobson became enthusiastic that led to the design of classical Pygmalion study (Rosenthal & Jacobson, 1968).

Students varying in their ability (composing above, average, and below) and grade from all classrooms of a school served as subjects in the study. Experimenters randomly assigned 20% of the children in experimental group where teacher was briefed about the student's score on the " test of Inflected Acquisition" with a expectation that they would show surprising gains in their future performance. Thus, actual difference between the experimental and control group was only in the mind of the teacher. It was found that the performance of experimental group subjects was significantly greater than the control group subjects' performance. Not only this but at behavioral level while describing about the behavior of the children belonging to the experimental group it was found that teachers described these children as more interesting, curious , and happy in comparison to the control group. Similar feelings were reported on future success also.

Comments and Criticism of Pygmalion Study

Study was very striking and appealing too. Initial reactions, though critical, helped the future scholars to be cautious for methodological sophistication and over generalization.

Jensen (1969) criticized the findings of the study on the grounds of unit of analysis (child rather than the classroom), practice effects on task performance, and reliability of group test. Their use of IQ test without establishing its validity was pointed out by Thorndike (1968) also. Transformation of original Pygmalion study by Elashoff and Snow (1971) produced similar results but were not

interpreted in the same line of the original study.In another study Barbar and Silver (1968) concluded that the expectancy effect can neither be pervasive nor easy to demonstrate because 12 out of 31 experiments could only show a significant expectancy effect. Jensen (1980) further concluded that Pygmalion effect was nothing but a myth. Rosenthal (1985) himself was not very satisfied with statistical requirements of the study.

Despite a sharp criticism on methodological, processes, and statistical grounds this study generated interest of large number of scholar across world and produced voluminous research output. On magnitude of expectancy effect Rosenthal and Rubin (1982) suggested that d (weighted mean), r , and r are inappropriate and therefore, proposed *the binomial effect size display (BESD)* as an alternative device to see the magnitude of expectancy effect.

Types of Expectancies

Initially expectancy in social learning was defined as " the probability held by the individual that a particular reinforcement will occur as a function of a specific behavior on his part in specific situation or situations" (Rotter, 1954, p.107). He however, found higher degree of difference on level of aspiration of individuals, despite the identical objective probabilities and therefore, focused on subjective probabilities. He talked on two types of expectancy namely specific expectancy based on the past experience in situations perceived to be the same and generalized expectancy based on perceived similarity of reinforcement and situations. Perceived similarity of reinforcement was also called expectancy for reinforcement-reinforcement sequence which means that some reinforcer will lead to the occurrence of other reinforcer. Perceived similarity among situations is frequently based on common

decisions to be made or problems to be solved (Zuroff & Rotter, 1985). This led to concentrate the work in the areas such as locus of control (Rotter, 1966) and interpersonal trust (Rotter, 1971).

Application of Expectancy Effect

Pygmalion Effect. The most well known example of self fulfilling prophecy (SFP) is perhaps the Pygmalion. It shows that a strong wish or love or belief has capacity to infuse life to even an inanimate object. A well known sculptor and woman hater Pygmalion was a king of Cyprus. He was able to carve an ivory statue of a maiden so beautiful that he felt in love with it. Not only this, but he also treated the statue in a such a way as if it was alive. Mythologically the Goddess Aphrodite so pitied on the celibate state of the Pygmalion that she brought the statue to life and an inanimate object turned into a living creature (Barthwell, 1971).

Pygmalion phenomenon was nicely dramatizes by George Bernard Shaw in his play Pygmalion where Lisa Doolittle, one character, explains that the difference between a lady and a flower girl is not how she behaves , but how she is being treated. If she is being treated as a flower girl she will always be a flower girl but if she is being treated as a lady she will remain a lady. An interesting and important point for a social scientist is that Pygmalion's treating the statue as if it was alive, in fact, caused it to become so. Thus, Pygmalion effect refers to the positive expectations or the SFP effects.

Galatea Effect. The living statue was later on named as Galatea who became the wife of Pygmalion. After marriage they were also blessed with a daughter named Metharme. The Galatea effect shows the power and application of Pygmalion or expectancy effect. At a broader level if teacher expects high from his students it will

not only improve their performance but it will have positive impact on all and the organization as well (Babad, Inbar, & Rosenthal, 1982).

Golem Effect. It is not always necessary that expectations will always lead to the positive outcomes. If it happens in this way it leads to the self defeating prophecy hypothesis (SDPH). Within Jewish myth once life is infused into mechanical creature to serve it Golem grows into monster, runs amok, becomes destructive and finally restores to the dust (Babad, Inbar, & Rosenthal, 1982). Thus, Golem effect warns us to the negative effects of the self fulfilling prophecy.

Placebo Effect. An application of SFP was not restricted to the education, psychology, and management it had its impact on other allied disciplines. In medicine and surgery also it has been reported that patients get soon recovery if their physician expects from them in positive manner that is for having sooner recovery. It can be thus said that physicians' expectations that patients will recover soon promotes their recovery is known as placebo effect (Critelli & Neumann, 1984).

Mathew Effect. It is also argued that if we look at the scientific researches and the researchers it happens that scientists make great contributions if they expect to accomplish great research, on the basis of a reputation grounded in past achievements. If it happens so, this accomplishment may be called as Mathew effect (Merton, 1968).

Messiah Effect. Eden (1990) a practical user of SFP in the field of management put forth this concept to denote that consultants of high repute (Messiaha) inspire their clients to handle their relatively difficult problems and to improve their performance.

This happens because Messiahas are more likely to arouse high expectations than are unknown consultants proposing the same kinds of solutions.

I Will Show You Effect. Sometimes what happens that your prophecy (positiveØnegative expectations) results in a negative way. This is known as pessimistic self defeating prophecy (SDP). For an example in Levingston's (1969) study the sales managers were told that they will be able to meet only average level of the target but final outcome was that they did cross much of their target which was much ahead than the average or prophesied target. This might have resulted that the managers might have taken it as challenge and worked to meet the target more than the average to show the management that they and their talents are underestimated by them. If it happens in this way it may be called as I will show you effect.

Expectancy Effect. Expectancy effects are special cases of SFPs. It assumes that SFP occurs when the expectation of an event induces the behavior that increases the likelihood of the occurrence of the expected event. It is also assumed here that your expectation of getting success leads in achieving the success and, similarly, expectation of your failure is going to increase the likelihood of your failure. Thus, you will get success if you expect to get success (Rosenthal & Jacobson, 1968).

Experimenter Effect. Rosenthal (1976) conducted a series of studies varying in their nature (correlational to experimental) and found that his subjects participating in the study performed the way he was expecting from them to do. This was called as experimenter effect. So if experimenter is expecting from subjects to perform well on the experimental task they are likely to perform well in a

hypothesized manner.

Confirmed Failure Effect. If your prophecy is optimistic and outcome is positive and prophecy is negative and outcome is failure it supports to the SFP effect. What happens if you expected from somebody not to do well and outcome was also a failure? Will you call it a SFP ? Answer is simply yes but it can be called as confirmed failure effect. This kind of interpretation may be more relevant where social variables like caste (upper0lower) and religion (Hindu0Muslim) of the target person influence the behavior of the expectation maker.

Contrast Effect. It indicates to a tendency that sometimes people interpret an individual's behavior in ways opposite to the general stereotype based behavior (Jussim, 1990). It will be an example of contrast effects if teachers belonging to the upper castes evaluate scheduled caste students more favorably than the students of upper caste.

SFP Hypothesis . SFP hypothesis (SFPH) is a situation which leads to an outcome in expected direction. That is, if one is expecting an outcome of a task in a positive way outcome will also be positive. Similarly, if one is expecting an outcome in pessimistic way outcome will be a failure. Not only this, but it is also assumed within SFPH that outcome (positive0negative) would not have happened in its present form if the prophecy would not have been made (Rosenthal & Jacobson, 1968).

Historically, Ebbinghaus (1885) should be recognized as the first behavioral scientist to discuss about the SFPH who reported that early experimental data return prophesied subsequent data. Later on Thomas and Thomas (1928) wrote assertively that "if men define situations as real, they are real in their consequences" (p.572).

But it was a noted sociologist Merton (1948) who first tried to define SFP as " a false definition of the situation evoking a new behavior which makes the originally false conception come true" (p.195).

It became concern of social psychologists particularly after the classical Pygmalion in the classroom publication (Rosenthal & Jacobson, 1968). In 1973 Henshel and Kennedy provided a more inclusive terminology of self altering prophecy which may be self fulfilling or self defeating. These self altering prophecies are the expectations by a source person. That is when the expectation is communicated to the target person it will influence his/her behavior. At this stage it is assumed, as mentioned above, that the influenced behavior would not have occurred had the prophecy not been made.

Such target behaviors may be congruent or incongruent with the prophecy. If they are congruent with the prophecy they support to the SFP. In case they are not congruent with the prophecy they support to the self defeating prophecy (SDP). One point is very clear that in either case the prophecy has an effect on those to whom it refers. This point had an impact on the behavior scientists leading to the development of many related concepts.

Thus, SFP refers to the situations in which A's expectations about B lead to the B to act in such a way that provides outcome to confirm the expectation of A. In other words it is the positive outcome of the expectation. That is, if you have prophesied the target behavior, let us say here exam performance of the student, in positive way outcome is expected to be positive and similarly negative expectation is expected to lead to the failure. Rosenthal (1974) on students at the classroom settings and Merton

(1948) on employees at the Banking sector reported clear evidence in favor of SFP hypothesis.

Optimistic Self Defeating Prophecy (OSDP) Hypothesis. It is also possible that a student is predicted by his teacher to do well in the exam and upon prediction of success he0she became so worried about possible failure that outcome resulted into failure. If this happens it supports to the optimistic self defeating prophecy (Archibald, 1974). In such a condition your prophecy is positive but result is *negative*.

Self Sustaining Hypothesis. Suppose you expected from A to do well in a task and the outcome was a failure or you expected from B for not doing well and the outcome was good . These are clear cases of SDH. What happens if a teacher expected from a student to do well in the exam and result was a failure and still teacher keeps high expectation about the student. Similarly, a teacher expected from a student to do badly in the exam but result was very good still teacher maintains low expectation about the student. Not only this, but teacher also justify the expectation by giving large number of external as well internal justifications. This is situation where one is self sustaining with his0her expectation even outcome does not support it.

STATUS AND CRITICAL EVALUATION OF EXPECTANCY EFFECT

The main point which comes out very clearly now is that expectancy effects have been examined not only in education and psychology (Ambadi & Rosenthal, 1992; Brophy, 1983; Cooper,1979; Finn,1972: Jussim, 1986: Miller & Turnbull, 1986: Rist, 1972; Rosenthal & Jacobson, 1968) but also in the field of sociological social psychology (Berger, 1992), and Management (Eden, 1984, 1986, 1990; Field, 1986, 1989; Levingston, 1969) very extensively. Evidences

of well designed naturalistic (Carno & Mellon, 1978; Rist, 1972) as well as series of correlational and experimental (Jussim, 1989), and meta analytic studies (Ambadi & Rosenthal, 1992) can also be seen. This area has made its respectable place in the literature of psychological sciences and could demonstrate a solid theoretical, methodological, and applied contribution. Though, expectancy effect has passed through a sharp criticism in the literature (Brophy, 1983; Miller & Turnbull, 1986) however its power is not still gone (Jussim, 1986).

There are three main issues which require our attention here. First is the way expectation has been taken at different contexts. Second is that how accurate are the expectancy effects. Finally, what are the factors which help forming expectations about the target person.

Expectancy

Within the framework of psychology and education we have seen in the beginning how expectancy has been interpreted. Very recently, Berger (1992) tried to see it from a sociological social psychology framework and calls expectation state process as a social process. It has been argued that expectation process occurs within a situation of action in which two components namely activating events and conditions are very important.

Expectation states which are considered to be situationally having stable structures are influenced by actors' relation with each other. But this kind of framework may not be everyone's framework. It is also possible that expectations formed in one situation may become inputs in subsequent situations and they may be transferred from one actor to another or from one situation to other.

Merton (1948) submitted a very solid argument that any kind of

expectation we make about things outside us may be having some relationship with the social reality and therefore he very strongly argued that even erroneous beliefs have capacity and power to create their own reality. Thus, whatever expectations we make about others are influenced by our social processes and have relationship with external world.

Jussim (1990) has very systematically demonstrated how expectancies have very important role to understand social problems and social reality. In another study Jussim (1989) put forward three main sources of expectancy confirmation in the context of student teacher relationship as following:

1. Even when teachers expectations are initially erroneous they may evoke from students performance levels consistent with those expectations;
2. Teachers expectations may lead to perceptual bias; and
3. teachers expectations may accurately predict students achievement.

Author also discussed that for naturally occurring SFP three conditions are necessary. First is that there should be a positive association between teachers' expectations and student's achievement. Secondly these relationships should not be the outcome of accuracy. Finally, teachers must not be responsible for judging students behavior.

Accuracy in Expectation

Is it that Rosenthal's students did well because they were expected to do well or is that bank of Merton's study did not do well because it was expected in that way? This kind of question has consistently been raised by number of scholars over these two decades. However, literature does not have straight forward answer

to this straight forward question. This is a simple question of how accurate are the expectancies?

To what extent expectancy helps improving performance is still a scientific problem to be answered but no evidence of zero correlation between the two is reported in any of the study till date. Undoubtedly, Rosenthal and Jacobson's (1968) early explanations demand extreme degree of precautions (Funder, 1987) which they themselves now have admitted (Rosenthal, 1985). However, original explanation of SFP effect is weakened, if someone raises, is not correct empirically (Ambadi & Rosenthal, 1992; Cooper, 1979; Eden, 1990; Feild, 1989; Jussim, 1990).

Goffman (1979) observed that judgment about others can be quite accurate even when they are based on a very brief observation of expressive behavior. In a further study this kinds of findings were confirmed (Watson, 1984). Taking together all kinds of studies in background it can be reported that correlation between expectancy and outcome is coming out in majority of studies ranging from .40 to .90 (Brophy & Good, 1974; Jussim, 1989; Rosenthal, 1974). Even explanations of naturalistic studies (Carno & Mellon, 1978; Rist, 1972) do not deviate from this finding. A critical analysis of all the studies in this area also indicates that always a modest degree of SFP effects of around .20 was found (Jussim, 1989; Ambadi & Rosenthal, 1992; Cooper & Hazelrigg, 1988).

Accuracy of prediction in brief observation which was called as thin slices (Ambadi & Rosenthal, 1992) was recently studied. It was found that thin slices of behavior may accurately be explained keeping ecological approach to social perception, truth to stereotypes or effect of SFP, and descriptive effects of thinking and

reasoning in mind.

Forming Expectations

As mentioned in the expectancy section that activating events and conditions (Berger, 1992) are important components of expectancies. This means that how will one form expectation about a target person will be dependent on what characteristics target person has, what is the status (psychological and social) of the expectation maker, and what is the outcome of the interaction between the two.

If we look at the reviews related to the expectancy effects particularly in the classroom contexts (Ambadi & Rosenthal, 1992; Brophy, 1983; Cooper, 1979; Cooper & Hazelrigg, 1988; Finn, 1972; Jussim, 1989; Miller & Turnbull, 1986; Rist,1972) factors like gender (Brophy & Good, 1970; Finn,1972; Goldman & Lewis, 1977), physical appearance (Goldman & Lewis, 1977), race (Cooper, Baron, & Lawe, 1976), social class (Rist, 1972), ethnicity (Rubouts & Maeher, 1971), age (Rosenthal & Jacobson, 1968), moral behavior (Murphy, 1974), social expectation (Carno & Mellon, 1978), pre performance information (Cooper, 1979), dyadic interactions (Jussim, 1989), SES (Darle & Gross, 1983; Wong, 1980), school teaching (Jussim, 1986), school tracking (Brophy, 1983; Jussim, 1986), teachers belief about intelligence of the student (Dweck & Elliot, 1984) initial expectation (Rosenthal, 1974), and past performance are some of factors being used by teachers in forming their expectations about the exam performance of the students. Some of these variables, which are not directly related with the performance of the students but are used by teachers in forming their expectation, were called as nonintellectual or nonacademic correlates of teachers expectation (Bhargava, 1980).

Teachers' expectation leads to the students' performance (Rosenthal, 1974) and students react to their differential treatment (Darley & Gross, 1983; Eccles & Weigfield, 1985) is demonstrated in numerous studies. It was also reported that teachers expectation leads to students performance more than students performance helps in forming teachers expectations (Jussim, 1991; Miller & Turnbull, 1986). But the question is still how much? In fact, there is a great deal of inaccuracy between the teachers' expectation and students' performance. The meta analyses of the majority of the studies of United States have shown effect of around .20 (Jussim, 1989).

In the context of students and teachers relationship the following points were clearly found:

1. Teachers provide different amount and types of feedback to high and low students;
2. Teachers are emotionally more supportive to the high expected students than to low expected students;
3. They spend more time and effort with highs than lows; and
4. Teachers provide greater opportunities to perform and learn to high expected students than their counterparts (Rosenthal, 1974).
5. An evidence of teachers differential treatment with their students was found.

Such results were also found in other studies (Cooper, 1979) and it was argued that since teacher feel, and in fact they have, greater control over high expected students than the low expected ones therfore such observations should not be treated surprisingly.

Intelligence can be taken either as a global and stable ability or as the incremental accumulation of skills and knowledge. It may also be understood as a combination of both. Studies in this area

have shown that teachers belief about students intelligence (interpreted in either of the framework mentioned above) has also emerged as important variable not only in forming expectations but in changing expectations (Dweck & Elliot, 1984). It was also found in a field study that the benefit of doubt in borderline situation is only given to the high expected students but not to the low expected students (Finn, 1972).

Evidences were found that stereotypes play important role in forming expectations (Darley & Faizo, 1980). They may be of any kinds like race , sex, and ethnicity. If stereotypes operate in any evaluation process it may lead to the social inequality and injustice that may be a problem to any social system (Fettigrew & Martin, 1987). In classroom contexts the problem of stereotypes become very problematic if they are used for low expectation. But recent studies conducted at the laboratory (Jussim, Coleman, & Lerch, 1987) and naturalistic setting (Cook, 1984) have systematically shown that perseveres judge and form expectation on the basis of target person's personal characteristics than the race or class. However , this factor can not be completely dropped in its application (Goldman & Lewis, 1977) If one asks a question that, in case if teachers use stereotype information in their judgment, why do they do it? Synder, Tanke, and Berschied (1977) have gave given one explanation for such kinds of behavior people use stereotypes in their judgment, sometimes erroneous, that might lead to their own fulfillment. In another study Wineburg (1987), after taking different other possible explanations in background, further supported the argument extended by Synder et al (1977).

Evidence of perceptual bias has got consistent support in the literature (Jussim, 1991; Rosenthal, 1974). Teachers differential

treatment of students such as more emotional support, favorable feedback, more attention and material to some, and giving more opportunity to perform also indicates that biases operate in natural settings (Jussim, 1989). Darley and Gross (1983) found in their study that same test performance by the same teacher is being evaluated differently for different students. This study supports that cognitive bias operate in evaluation and judgment about the students. Evidence for cognitive bias can be seen in another study (Hastie & Kumar, 1979) where operation of extra cognitive processes in memory for incongruent information has been reported.

Teacher Expectancy : Retrospect and Prospect

A careful reading of the literature clearly show that despite of sharp criticism of SFP hypothesis it is still concern of scholars. Studies varying in their nature from naturalistic to experimental have confirmed expectancy effect. Meta analytic studies have also gone in similar line. It has also been found that expectancy effect is not restricted only to the classroom context it has its application in work setting also.

An obvious fact is also there that regardless of events of the history and contemporary changes of the societies, parents still want the best for their children and therefore the role of teacher becomes very much important for educational quality. Thus, study in the area of teachers' expectation about the performance of students becomes very important.

Thus, it can be concluded that despite a sharp criticism of Pygmalion study scholars have been constantly working on examination of the SFP hypothesis. This process has placed the study in a very

respectable position in the literature of education research and a clear trend of advancement at theoretical, methodological, and applied level can be seen. In no case the basic contribution and merits of the study were underestimated and the strong advocators of expectancy effects are still convinced that the teacher is a major influence in determining individual difference in student achievement.

State-of-the-Art of Teacher Expectancy Research in India

Abstract

Teachers' expectation influences students' performance is still a controversial issue in the literature. Its relationship with students' performance can not be ignored, however. To explain and understand this relationship in classroom and other contexts a large number of experimental and correlational studies, in the west, have been performed after the Pygmalion study. As a result of that many concepts and terms emerged. Studies done, in India, in this area are reviewed in this paper. Picture emerged here does not show a very encouraging scene. Efforts made by scholars of education in comparison to the psychologists are on the higher side. It has been discussed that area is of importance where we have scope to make a significant applied and cross-cultural contribution and move in this direction seems positive.

State-of-the-Art of Teacher Expectancy Research in India

Rosenthal and Jacobson's (1968) study is often referred as the birth place of the scientific investigation on teacher expectancy effect (Dusek, 1985), though phenomenon was not new. After this study significant efforts were made to examine its effects in the areas of educational, social, and developmental psychology by western and American scholars. Role of Indian scholars in this area has not been very constructive. Present review is an effort to see how this area has been covered by Indian scientists.

Teacher Expectancy : Indian Historical and Philosophical Perspective

Study on teachers' expectation and students' performance can be traced back in the early period of ancient Indian history (Drona-charya-Arjuna episode of Mahabharat) but it could get proper status and scientific recognition in psychological sciences only after the Rosenthal and Jacobson (1968) proposed a SFP hypothesis on the basis of their Pygmalion study.

An intellectual quest for truth, which was intensely spiritual in nature, was the major focus of Indian philosophy which emphasized more on the see and self. Philosophically, see and self cover mostly all aspects of mental processes. Our aim here is not to see what do they mean but how expectancy was existing in Indian philosophy and history.

Effect of Expectancy in Vedas

To explain different aspects of human behavior, in personal and social life, so much has been written in Vedas. Many of their components till date are not even properly understood and explained resulted to the formation of mysteries only, which, in

fact, may have realistic orientation as well.

Let us share a dialogue between the Prajapati (a teacher) and the Indra (a student). Once Prajapati explained the concept of self, as what one looks into another's eye or into water or mirror, to his two students, Indra (the king of gods) and Virochana (the king of demons). Virochana was satisfied with the answer but not the Indra who further asked clarifications on the concept of self as merely reflection of body itself. This time Prajapati says that dreaming subject is self. Indra was still not satisfied. This time teacher explained self as the enjoyer of deep dreamless sleep. His doubt was still on so he asked further question. This time teacher was happy to explain the concept at his satisfaction level. A question that why Virochana was satisfied with the first answer itself and Indra asked so many clarifications can be answered differently by scholars of different orientations. For us, keeping intellectual and cognitive components aside, it can be said, for the present context, that Prajapati expected from Indra and not from Virochana to ask many questions and therefore, he asked.

Expectancy effect in Gita

Similar kind of evidences in favor of use of expectancy can be cited from Upnishadas, which is omitted here. In fact , in Bhagwatgita, which was written many hundred years before George Bernard Shaw's Pygmalion came, where Arjuna's (the student) good performance was due to expectation of Dronacharya (the teacher). To substantiate the expectancy expect we can also say that much success of Arjuna in the battlefield of Mahabharat was due to high expectation of Krishna, his guide.

Expectancy Effect in Ramayana

In Ramayana Rama's success at many occasions, particularly at the

time of his marriage (Dhanusyajna) was a wonder to the audience of that assembly. But he could do the job successfully because Vishwamitra (his teacher) expected from him to do well, the task which was not even performed by the commanders of different kingdoms present that time in the assembly. Thus, many examples from the history and philosophy can be cited to indicate the role of expectancy on the success of forthcoming task, though logically consistent but experimentally not established.

Comment

Many examples from epics and plays can be the basis to say that expectancy of a teacher has an important role on the subsequent performance of student. Evidences are also available to show that objectivity and logical consistency have been important criterion to examine truth in Indian philosophy where all concepts and models have to be tested. Therefore, even Indian literature itself will not permit to accept any explanation, about any concept, without its empirical merits.

Metaphysics. The epistemology doctrine of Charvaka claims that perception is the only means of valid knowledge where they have rejected the validity of even inference which seems to be much closure to the expectancy. According to this school of thought an inference is said to be mere leap in the dark, though some inferences may turn out to be accidentally true. Mass guess work will not establish an association between the actual reality and the inferences. He admits the existence of four elements- earth, water, fire, and air but not the fifth, the ether on the ground that it is inferred and not perceived. Though, Charvaka's this argument that perception is valid and inference is not is not very convincing because even perception may be the outcome of inference

itself, but a different issue of discussion.

Nyay Shastra. Within Nyay, perception, inference, comparison, or analogy, and verbal testimony are four kinds of valid knowledge. Perception for this school is explained as non-erroneous cognition which is produced by intercourse of the sense organs with the objects; inference is that cognition which presupposes the other; cognition is that knowledge which arises after other knowledge; and comparison is that knowledge which is derived from comparison and roughly corresponds to the analogy. This gives an account that even within their framework inferences have relationship with the external reality.

In similar line we can extract the concepts used by the ancient philosophers and scholars which can provide bases to say that the term expectancy was existing but not in its present form. One may like to go through with empiricism of Lockey and Berkley, skepticism of Hume, the flux of heraclitus of Bergson, copernican revolution of Kant, abiding contribution of Hegal, theory of ideas of Plato, induction against deduction of Becan, and indeterminate perception or the raw unverbalized experience of James (reading based on C.D. Sharma's Critical survey of Indian Philosophy). These theoretical frameworks give an account to say many of our future outcomes can be inferred which may come out to be true also.

STATUS AND EVALUATION OF INDIAN STUDIES ON EXPECTANCY EFFECT

Let us examine how expectancy effect has been examined by Indian scholars of social sciences, particularly of psychological and educational sciences. If we look at the recent survey of education (Buch, 1986) and psychology (Pandey, 1988) separately the state of the art of studies on teachers expectations in India

becomes very clear. Scholars of education are relatively more concerned on issues like teachers expectations than educational or social psychologists in India. It is also emerging that social, situational, and personal components related with academic performance did not get proper attention of scholars of psychological sciences in comparison to the intellectual and cognitive components.

Singh (1983) has very clearly reported that there is an increasing trend on professional and technical education of the secondary school teachers. This may be helpful to develop the teachers their talents and benefit the students as well. A careful observation of the Table 7.17 (p.217) clearly indicates that the majority of the teachers are professionally trained (B.Ed.0M.Ed. 86%, Ph.D. 6%, and Diploma Holders 8%). He could report only 1% secondary school teachers who lack professional and technical education. This information is very relevant from classroom management and educational performance point of view. It is assumed that well trained teachers will act in the classroom in more scientific manner and behave with their students in a more rational way which may, in turn, avoid so many unanticipated consequences.

Buch (1986) in his twenty chapters assigned one chapter on teaching and teacher behavior (Dave, 1986) getting 5% of place in education. The review includes 31 Ph. D. theses, 3 unpublished manuscripts of departments/centers, and 4 research projects funded by mainly the NCERT, New Delhi. According to Buch (1986) the trend of research output in this area is not encouraging over the years (p.19). Incorporating doctoral studies of education and allied disciplines and research projects he could report only nil before independence and could trace only 3, 9, 59, and 17 in 50's, 60's,

70's, and 80's respectively.

Taking historical and cultural examples of Arjuna-Eklabya episode, citing realities of 19th century , and presenting scenery of republic India Dave (1986) classified all studies of this area which are either descriptive studies (D) or done to develop some instrument (DI) in four main categories as following:

1. Teacher factors affect his/her behavior and teaching strategy,
2. Teacher behavior/teacher strategies affect learning outcomes,
3. Teacher factors affect learning outcomes, and
4. Teacher factors affect teacher behavior/teaching strategies, which in turn, affect learning outcomes (p. 751-752).

He analysed the studies in this area across all the three surveys of education and reported that 4th category has not at all been the concern of the scholars in this area while the 1st, 2nd, and 3rd had 53%, 22%, and 7% representation respectively of the studies reviewed.

Panda's (1988) chapter on social psychology of education, the only chapter dealing with educational issues in the third survey of psychology in three volumes having seventeen chapters (Pandey, 1988), also could not have even a main heading dealing with teacher behavior and students performance. He referred these in sub-headings.

Within Social psychology of classroom section he allocated one section on the school as a social system and could trace 22 publications with 2 *monographs*, 13 Ph.d's (12 *from* M.S. University Baroda and 1 from University of Madras), 7 published studies in Indian Journals. On teacher section he could report 14 references out of which 4 are the published articles, 2 are the monographs, and 8 are the Ph.D. theses. Within pupil section it was possible to

have only 2 Ph.D. theses and only 1 monograph. Similarly, within classroom as a group section it was possible to have only 1 monograph and 1 Ph.D. thesis.

Within teacher-student relationship section it was possible to see 14 published studies. Majority of studies are framed within Flander's interaction analysis (Flanders, 1960) and have supported its relevance to study student teacher relationship in Indian context. Within teachers attitude towards different aspects section it was possible to see 6 books, 2 published papers, and 2 seminar papers.

It does not mean that I want to present a gloomy picture of the Indian literature done in this area. There are large number of studies appearing in every issue of leading and popular journals of education but studies in the area of teachers expectation and students performance are not very encouraging.

Chitnis (1981) did an extensive survey of the scheduled castes and scheduled tribes students of Maharastra and could come out with many interesting observations. One of the interesting aspect of her report is that special treatment of the students, like reservations and other things which differentiates the student from general category, is not very helpful to them in long run. This kind of treatment may lead to the problems of coping in the class. Once a student is not able to cope up properly with others in the class teachers expectations about this kinds of student is certainly not going to be positive. Consequently, student may perceive or even treat that teachers' treatment with him@her is negative which may deteriorate the subsequent performance.

Bhagirath (1978) investigated correlates of academic achievements as perceived by both students and teachers belonging to rural as well as urban schools. They perceived in similar way intelligence,

character, punctuality, activeness, alertness, efficiency emotional, school, and social adjustment, and creativity as main correlates of achievement. Debas (1979) reported that children' perception of teachers attitude towards them was found to be related with their self perception and teachers had more favorable attitude about children of advantaged home than the disadvantaged. In a study Iyer (1977) found self reliance, sense of personal freedom, feeling of belonging, withdrawing tendency, social skills social and community relatedness, and test anxiety were some main factors which were found related to underachievement in mathematics at secondary school level. Mishra (1978) found that children of qualified and prestigious profession people have favorable attitude towards mathematics than their counterpart.

For D. Litt. dissertation Chopra (1982) conducted a study on 309 girls and 598 boys to identify the nonintellectual correlates of academic achievement. Author reported socioeconomic background and study habits of the student as main correlates of academic achievement. It was also reported in this study that these factors are helpful in continuing the education of the students. In a separate analysis of high and low SES students it was found that high SES students have higher vocational aspiration. On adjustment in comparison to the emotional, health, and social home adjustment was more closely related to the academic achievement.

A very important and well designed study was conducted by Sinha (1970) to identify the academic achievers and non-achievers. He could identify different components which are closely associated with achievers and similarly with non-achievers. Although this study was not experimental in nature, may be because of his thinking about experimental social psychology only as verbal (Sinha,

1981) was in process that time, but its results are very interesting. A lot more conclusions may still be derived from the Tables he presented which were not the concern of the author, perhaps, that time and therefore, were not highlighted. It also appears, after looking at such insightful results with simple analyses, that his team did not find this area as interesting one and therefore, the development of further researches are not as per expectation. I personally find this study as one of its kind which still demands our attention.

In the context of teachers expectation a major work has been done by Buch and his colleagues (Buch, 1979, for detail 1986). Under the guidance of Panda and his team (Panda, 1978, 1981, for detail 1988; Panda & Bahera, 1985; Panda & Das, 1980) a large number of studies were done. These studies have invariably suggested that it is one of the important area to be studied in depth keeping many situational, personality, social, and cultural variables into consideration.

Lal and Nahar (1978) very clearly reported that it is social class that determine expectations of the teachers about their students performance. Singh (1980) in all his national UGC lecture series emphasized the role of class on teacher expectation. Incorporating different classes of students of different developmental level Rath, Dash, and Dash (1979) also reported a clear impact of social class on this.

Sharma and Tripathi (1989) reported a study on the role of social factors on teachers expectation. They incorporated class teachers of primary and secondary schools who were requested to give a list of 6 students who have a bright future and similarly a list of 6 students who have a bleak future. They also recorded students'

caste and background information. Teachers familiarity and liking of the students of different class and caste were also recorded. With the help of their analysis they suggested that teachers hold high expectations from students belonging to the upper castes and concluded that social class of the student determines the expectation level of the teachers. It should be noted here that all the teachers participated in this study were belonging to the upper caste and authors focus was on future of the studente and not their exam or academic performance. These results, thus, only substantiated earlier findings showing relationship between social class and teachers expectation.

Bhargava (1980) in a pilot study could explore some of the variables reported by secondary school teachers in an unstructured interview such as classroom attendance, completion of homework, classroom interaction, pattern of answering in the classroom, regularity in the class, getting model or prize from authority, obedience, hidden seat in the class, lost gesture in the class, caste, occupation of the parents, external complains, and involvement in extra curriculum activities. These variables were named as non-intellectual or nonacademic correlates of teachers' expectation.

Mathur (1989) extended this work and interviewed 120 secondary school teachers of urban area. She could explore around 300 variables reported by them. These variables were finally reduced to 78 after careful scrutiny. She used these variables on teachers varying in three age groups, marital status, and three types of faculty. It was reported that these independent variables have clear effect on all those variables which are not directly related with students performance such as ability and hard work and are nonintellectual (Bhargava, 1980). Some interesting interaction

effects have also emerged in her results.

Bhargava and associates in series of studies (Agrawal, 1992; Bhargava, 1991; Bhargava & Agrawal 1992; Bhargava & Mathur, 1991; Bhargava & Pandey, 1990; Mathur, 1989; Pandey, 1992) could examine the merit of SFP hypothesis on students and teachers belonging to rural and urban areas. They found that nonintellectual correlates are also being used by teachers in forming their expectations. Their relative weight is yet to be demonstrated. These studies could also demonstrate that, despite of sharp criticism of SFP effects in western literature they are still very, rather more, powerful in our context. This may be because of the linkage of cultural roots in student-teacher relations in India.

Teacher Expectancy : Retrospect and Prospect

If we look at our own cultural context relationship between student and teacher is more deeper than any other culture. It not only socialises us to respect the teachers but in a way leads to the dependency. Much of the success of lord Rama may be said as an outcome of Vishwamitra's high expectation or it is Guru Dronacharya's high expectation about Arjuna that made him an unique hero of that time. Countless examples can be cited to illustrate the point that effect of teacher expectancy in Indian epics has very well established and it has left its impact on the values of even modern Indians.

This area has made its respectable place in the literature of psychological sciences and could demonstrate a solid theoretical, methodological, and applied contribution. Though, expectancy effect has passed through a sharp criticism in the literature (Brophy, 1983; Miller & Turnbull, 1986) however, its power is not still gone (Jussim, 1986) and Indian scholars have not paid

their attention in this area very systematically. Therefore, it will be difficult for us to conclude anything in very strong manner about the pattern of relationship between teacher expectation and students performance. on the basis of Indian data. Certainly, trend of the findings of some studies cited above give wide scope to infer a trend of positive relationship.

PYGMALION IS ALIVE: AN EXPERIMENTAL EXAMINATION OF EXPECTANCY EFFECT

Abstract

Experiments performed following a design of Pygmalion study have supported existence of SFP hypothesis. However, evidences of giving different explanation even for the similar kinds of results were also found. It was necessary therefore, to design a simple experiment examining Pygmalion effect with Indian students. Randomly 3 classrooms of Standard VI from a Government School were selected immediately after the six monthly exam. Mathematics teachers teaching in these classes were requested to give separate lists of 10 high and 10 low expected students (in the context of their exam performance) of their class and helped in preparing pre and post tests of moderate difficulty. The only difference between the pre and post test was change of values and order of presentation of the questions. Pre test was tested on all the students present on the test day while on post test students were divided on experimental and control conditions. Under experimental condition teachers were requested to give positive expectation. A statistically significant difference between the performance of students in the pre and post test under experimental condition but not in control condition provided a base to say that expectancy effect has role on class performance. A careful analysis further revealed that its impact is sharper with low than high and average expected students. Results are discussed to reconfirm the expectancy effect in our context.

PYGMALION IS ALIVE: AN EXPERIMENTAL EXAMINATION OF EXPECTANCY EFFECT

Some studies have shown a clear impact of expectancy effect (Rosenthal & Jacobson, 1968), some of moderate degree (Brophy, 1973, Jussim, 1989), some very weak (Barber & Silver, 1971), and some interpreted their results following a different framework (Elashoff & Snow, 1971). Present study is designed to see the effect of teachers' expectation on students' performance in Indian context. It has been hypothesised that teacher expectation will show its significant impact on students performance.

Method

Subjects. Three classrooms of Standard VI at a government aided school from Bhopal, Madhya Pradesh were selected for the study. Teachers teaching mathematics in these classes were approached by the investigator immediately after one week of the six monthly exam, which from teaching point of view is considered to be relatively free time. All students of the three classes present on the test day 35, 31, and 32 respectively participated in the study out of which 16, 14, and 14 respectively were the girls. There mean age was 10 years and 11 months.

Procedure. Teachers were told that investigator is working on a research problem dealing with students-teacher interaction in which their cooperation is sincerely needed. They were requested to give a list of 10 students from their class about whom they are expecting high for doing well in the exam in which they have just appeared. A similar list of 10 students from whom they are expecting poor was also taken. Remaining subjects participated in study were treated within average expectancy category. It should be noted here that teachers had yet not seen the six monthly exam

answer books of these students at the time when they gave the list. They also did not have any exam test of these students before this.

With the help of these teachers a test of mathematics consisting of 10 simple questions of moderate difficulty was prepared in the line of six monthly exam, just finished. Teachers assured that most of their students will be able to solve mostly all questions in 15 minutes, but no testing of the test was done. So the timing of the test was fixed for 20 minutes. Test was administered by the investigator who was introduced by the class teacher. They were requested to answer on the test paper itself which was evaluated immediately after the test.

A test of 10 questions in similar format, where only values were changed, in consultation with the teachers, was again prepared. Order of presentation of questions from pre-test was also changed and the time given for the test was again the same.

There were two major changes this time. One was their test was not administered in their classroom but to a different class and second was that the teacher gave positive expectation to 5 high expected , 5 low expected, and any other 5 students (whose name was later on given to the investigator) for doing well in the test before leaving to these students one by one to the test room.

Information about attendance record and the % of marks later on received by these students in their six monthly exam was also taken. After coding of the data their pre and post test books were returned. In a briefing session a number of questions regarding the knowledge of their teachers' expectation were also asked and recorded.

Analysis.In fact, design was a 3x3x2x2 (Expectation level x Class x Experimental condition x Test) factorial. Expectancy had 3 levels as Low, Average, and High; Class teacher had 3 levels namely Teacher 1,2, and 3; Experimental and Control were the two levels of experimental condition; and Pre and Post were the two levels of test. It was a repeated measure (in result section they are analyzed separately). In each cell there were 5 students. Thus, a 3-way ANOVA separately for pre and post test, T test , and correlational analysis were performed.

Results

Main effects. Separate 3-way ANOVA for pre as well as post test condition was performed following a 3x3x2 factorial design. As can be seen in Tables 1 main effect of expectancy level was found significant. This means that the performance of students belonging to the low (Mean=57.00 SD=9.87), average (Mean=76.67 SD=5.92), and high (Mean=93.00;SD=6.51) level of expectancy differed significantly under pre-test condition. Main effect of class was not found significant as performance of students of class A (Mean=77.17;SD=15.90), class B (Mean=76.33;SD=18.28), and class C (Mean=73.17;SD=15.84) was mostly same. Performance of experimental group (Mean=76.89;SD=17.13) as well as control group (Maen=74.22;SD=16.16) also did not differ significantly as main effect of experimental condition was found to be nonsignificant.

Tables 2 shows significant main effect of expectancy level for post-test condition. This means that the performance of students belonging to the low (Mean=67.00 SD=13.68), average (Mean=77.67 SD=6.12), and high (Mean=94.67;SD=5.71) level of expectancy differed significantly under post-test condition also. Main effect of class did not emerge as a significant factor as performance of

students of class A (Mean=80.67;SD=14.61), class B (Mean=81.17;SD=14.24), and class C (Mean=77.50;SD=15.35) was statistically not different. Performance of experimental group (Mean=85.11;SD=10.31) was significantly higher than the control group (Mean=74.44;SD=16.45) and as a result main effect of experimental condition was found significant. It supported our hypothesis and provided an evidence in a favor of expectancy effect on students' performance. Study has shown that expectancy effect has an important role on enhancing performance of students as under post-test condition performance of experimental group improved significantly in comparision to the control group which was not the same under the pre-test condition.

Interaction effect. No interaction effect was found significant under pre-test condition. However, under post-test condition interaction of expectancy level and experimmental condition emerged as significant. It shows a linear fan pattern in a two way facorial plot (Figure 1). The difference between the performance of high expected students under experimental and contol group condition is not so strong as it is in case of low expected and average expected students. This means that expectancy effect has shown its stronger effect with low expected in comparision to the average, and high expected students. In fact, no inmpact of expectancy efeect on students belonging to the average level of expectancy is striking finding of this study. This reflected that expectancy show its impact with students of low and high expected category but not with students of average expectancy level. No 3-way interaction was found significant in either condition.

A separate analysis was done on experimental and control group data by applying T test. It has shown that the mean pre-test perform-

ance of the former group 76.00 (17.13) has increased under post test condition 85.11 (10.31) which was not the same for the later group. As hypothesized, students belonging to the later group performed in simialr way under the pre-test 74.22 (16.16) as well as post test 74.44 (16.45) condition. Statistical treatment has also shown a significant mean difference between the performance of experimental and control group students only under post test condition t=3.69 but not under pretest condition. This further substantiates the power of expectancy effects.

Table 1 Summary Analysis of Variance for the Data Under Pre-test.

Source of Variance	SS	df	MS	f
A: Expctancy Levels	19495.56	2	9747.78	169.53
B: Class Teachers	267.22	2	133.611	2.32
C: Groups	160.00	1	160.00	2.78
A X B	154.44	4	38.61	.67
A X C	140.00	2	70.00	1.21
B X C	71.67	2	35.83	.62
A x B x C	143.33	4	35.83	.62
Residual	4140.00	72	57.50	

Table 2 Summary Analysis of Variance Under Post-test.

Source of Variance	SS	df	MS	f
A: Expctancy Levels	11682.22	2	5841.11	118.80
B: Class Teachers	237.22	2	118.61	2.41
C: Groups	2560.00	1	2560.00	52.06
A X B	121.11	4	30.28	.62
A X C	926.67	2	463.33	9.42
B X C	41.67	2	20.83	.42
A x B x C	36.67	4	9.17	.19
Residual	3540.00	72	49.17	

Correlational anlysis performed between the pre and post test performance of students belonging to low, average, and high expectancy level has shown positive correlation as .36, .61, and .53 respectively. Performace scores of the 3 classes under pre and post test were also positively correlated as .77, .79, and .85. In the similar way performance under pre and post test for experimental as well as control group students were also found to be statistically correlated as .80 and .91. It was also found that the test performance of this study was highly correlated with six monthly exam performance and attendance record. These correlations provided an additional support to understand the relationship between performance and other variables, which are not taken into account here.

Discussion

Study has clearly shown an impact of expectancy effect on the test performance of students. Means of the pre-test performance for the low, average, and high expected students were found on the lower side in comparision to the post-test performance. The only difference between the pre and post test condition was the treatment of the teacher with the students of only with experimental group, that is giving them a kind of positive expectation treatment. This result gives a base to confirm that teacher expectation leads to students performance.

It revealed two things. One is that the performance of experimental group under post test condition has increased significantly which is not holding true in case of control group. Second is that the experimental treatment has increased the optimum level of performance very sharply. The only difference between the pre and post

test condition as mentioned earlier was the treatment of the teacher with the students of only experimental group, that is giving them a kind of positive expectation treatment. This result further confirms that teacher expectation leads to students performance.

A careful observation of the means also show that expectancy effect has influence only on the students who were expected by the teachers as low. These effects are not so strong with students of other categories. This means performance in post-test has significantly increased only of low expected students but not so strongly with students of other two category. In other words expectancy effect has shown its restricted impact on students' performance. This finding is useful for the classroom management and management of poor performing subordinates.

This study provided a solid base to say that expectancy effect works in Indian classrooms as the difference between the experimental and control group performance was found to be statistically different. Results have shown a strong impact of expectancy effect on the performance of low expected students. An addition of test difficulty in its experimental design would have strengthened the merits of the finding to say that Pygmalion is still alive in Indian classrooms. However, it does not give any chance to say that expectancy effect does not work in the classroom context.

Academic, Nonacademic, and Social Factors of Teachers' Expectation

Abstract

Teachers' expectation enhances students performance was demonstrated in numerous studies but not much is known about the characteristics of the students teachers take into account while forming their expectation as high or low. Present study is an attempt in this direction. Five hundreds and six secondary school rural teachers participated in this study. They reported about the characteristics which are being taken into account by them while forming expectation about the exam performance of Standard VI students, who have joined the school only in the last month. No information regarding their previous classroom habits and exam performance, excluding their interaction during this period, was known. Content analysis revealed that teachers consider number of factors in forming their expectations which may broadly and tentatively be classified as academic, nonacademic, and social. No impact of sex, religion, school level, and subject being taught by the teachers on set of characteristics reported. It has been discussed that teachers do not form their expectation only on the basis of classroom and academic characteristics, nonacademic and social aspects also get important place require experimental verification.

If we look at cultural context of India and examine relationship between student and teacher, on the basis of unobtrusive measures, it seems that this relationship is relatively deeper than any other culture. It socializes us to respect and obey teachers from very beginning of our life. It was Guru Dronacharya's (teacher) high expectation about Arjuna that made him an unique hero of the time. Present study is thus, designed against this background to explore the variables perceived by teachers to form their expectations about students' performance. It has been hypothesized that teachers background may have significant impact on generating different set of variables of teachers' expectation.

Method

Main objective of this study was to explore the variables which are perceived by school teachers in forming expectation about performance of their students. It will help identifing variables used by school teachers in forming their expectations.

Subjects. Before going to the main study a pilot study was undertaken on 88 rural male (N=44) and female (N=44) teachers teaching in primary, secondary and higher secondary schools of Bhopal, Raisen, and Vidisa districts of Madhya Pradesh, India. The main reason for taking teachers from all levels of school was to have a fair representation of schools. We tried to have equal representation of male and female teachers which could not be possible at all levels. Their description is shown in Table 3.

Table 3. Description of Teachers Participated in Pilot Study.

Sex	School Levels Primary	Secondary	Higher Secondary	Total
Male	17	10	17	44
Female	13	19	12	44
Total	30	29	29	88

Procedure. Procedure of this study was mostly informal and completely open based on an unstructured interview. Main objective for opting this kind of method was to ensure the teachers that they are not participating in an experiment rather informally talking with another teacher regarding different aspects of students behavior in the classroom. After having formal permission from the principal of the school we could approach an individual teacher depending upon his0her convenience. Only one teacher was interviewed at a time. Teachers, in general, could spend around 30 minutes with us at school premise. Some teachers left in 25 minutes some gave even around 40 minutes also. For our help we were certainly recording some points coming out from interview without leaving an impression that only recording of interview is being done. They were warmly thanked for their generous cooperation. Proper recording of the interviews was done daily at the end of the day.

Analysis. We went for content analysis of the recording of the interviews. A list was prepared and presented to a group consisting faculty, research scholars, and postgraduate students of psychology in a meeting that helped eliminating larger number of overlapping variables.

Results

Content analysis revealed 104 variables reported by the teachers in forming their expectation. After a careful scrutiny of these variables we identified 69 variables presented in Table 4.

Table 4. Showing A List of Variables Explored from Pilot Study

I	II	III	IV	V
1.Achievement	1.Hard Work	1.Physical Health	1.Regularity	1.Family Environment
2.Intelligent	2.Interest	2.Personality traits & habits,temperament	2.Interaction	2.No workload in house
3.Ability	3.Attention	3.Regard	3.Friendship with good students	3.Parents Education
4.Logical	4.Practice	4. Mental Health	4.Correct response in classroom	4. Family SES
5.Memory	5.curiosity	5.Morale	5.Understanding power	5.Family encouragements
6.Ambition	6.Seriousness	6.Cooperativenes	6.Class work	6.Text book opportunity
7.Talents	7.Motivatio	7.Obedient	7.Awareness	7. Family encouragement
8.Grasping power	8.Concentration	8.Beautifulness	8.Class participation	8. Caste
9.Expression power	9.Careful	9.Responsible	9. General Knowledge	9. Monitory factors
10.Confidence	10.Sincerity	10.Good behavior	10. Communication	10.Creative Power
11.Preparation for class	11.Excitement	11. Completion of the assignment		
12.Competitiveness	12.Homework	12. Talkative	12. Cross-questioning	
13.Good language	13.Much time for reading	13. Appearance	13. Attendance	
14. Class response		14.Written work	14.Well behaved	
15.Concept clarity		15. Sentimental		
16.Sharp minded		16.Introvert		
		17.Disciplined		

It has revealed that teachers used different kinds of variables in forming their expectations. In this process they considered not only variables which were related with the performance of the students, variables which have nothing to do with the performance directly and were of the outside boundary of classroom have also been reported. Despite of clear groupings of all variables presented in this table it does not explain anything. Two interrelated problems may be raised here. The first is that its sample size is too small to derive any kinds of inference. Secondly, there is possibility that more variables from the content analysis may emerge if we increase the sample size.

We therefore, decided to follow up the same method on a fairly larger sample of school teachers to represent rural secondary school teachers and to identify the variables of teachers' expectation about students' performance.

Method

Subjects. Three hundreds and eighty six teachers participated in this study. Age ranged from 23 to 59 and experience from 2 to 33 years. Their description as per their sex, school levels, religion, and subject's association is presented in the Table 5.

Table 5. Description of Teachers Participated in Main Study 1.

SEX	RELIGION	SUBJECT	SCHOOL LEVELS			
			SECONDARY	HIGHER SECONDARY		TOTAL
MALE	HINDU	ARTS	60	40	100	151
		SCIENCE	33	18	051	
	MUSLIM	ARTS	18	10	028	044
		SCIENCE	07	09	016	
FEMALE	HINDU	ARTS	45	50	095	155
		SCIENCE	26	34	060	
	MUSLIM	ARTS	12	15	027	036
		SCIENCE	05	04	009	
TOTAL			206	180	386	386

Design and Sample. Stimulus persons were students of Standard VI who come after passing Standard V from primary schools. No information about their previous performance and classroom habits was known. Selection of students of Standard VI as stimulus person was done on the ground that they are expected to have higher interaction with their teachers and judgment given by teachers about them will be accurate and mostly bias free. It should be noted here that all teachers, excluding 13 higher secondary schools, had an opportunity to teach Standard VI in their career.

Procedure. After obtaining formal permission from the principal of the school in person investigator approached the teachers individually and fixed an appointment at their convenience. Only one teacher was interviewed at a time in the school premise. After

establishing rapport, experimental task was introduced as one dealing with the variables associated with the formation of expectations of the teachers about the examination performance of students.

It was told that we are involved in a research project on teacher expectation and students´ performance. Since you are a teacher and have been teaching over years it is expected that you must have come across with different kinds of students in your classes. You also must be aware with different factors which are being used by teachers in forming high0low expectation about students. Although, we understand it is a very difficult to suggest the process through which teachers form their high0low expectation about students but since you are teacher and have been involved with teaching you may help us by telling your own experiences, beliefs, attitudes, and opinions through which you form different kinds of expectations about your students.

To start the discussion if I put you in a situation like this` how will you respond and react. It may be of help to us. Assume that you are teaching students of Standard VI who have just joined school in the last month. You have your interaction with them only of around 45 days. During this period you also could not conduct any test in the class as your school does not have system of monthly test. Now if you have been asked by your principal to submit a list of high expected (HES), low expected (LES) , and moderately expected students which he/she has to submit, immediately, to the district school officer. How will you do? You also do not have time now to conduct any test that may be of some help. Now it may be really very difficult to do it without having any authentic information regarding past test performance and other

relevant things. But since it has to be done you have to adopt some method@strategy@technique@criteria which may help classifying the students. Please tell us how will you go ahead. We are interested in knowing how and on what basis you would like to classify some students in HES category and some in LES category. You certainly would like to consider something to classify them. We will be really thankful to you if you could just mention some of those characteristics@traits@behaviors which you would like to apply while classifying them in these categories. In this way investigator initiated the discussion and proceeded further. Teacher kept on talking and saying so many things. Investigator tried to always keep the interview within the boundary of teacher expectation and recorded points suggested. Teachers were warmly thanked for their cooperation.

Data Analysis. Recording of the interviews of all teachers was subjected to the content analysis. Tables of the content analysis were made separately for arts and science and male as well as female teachers of secondary and higher secondary schools. Like pilot study again we had a meeting to scrutinize variables.

Results

Content analysis revealed 286 variables. A careful examination of these variables suggested that they can well be represented in the same set of 69 variables identified in the pilot study. Separate analyses of variables for male and female, arts and science, secondary and higher secondary, and Hindu and Muslim did not show distinct sets. Analysis also revealed larger number of performance related new words by interacting with larger number of people of the same ecological region but did not add to any new term. We therefore, decided to concentrate only on 69 variables identi-

fied in pilot study.

Major contribution of this study was that it has shown that a systematic study conducted even on smaller number of subjects also has powerful scientific potentiality. Another is equally important that factors outside the boundary of classroom and academics have important role in forming expectation about students as high or low. How much contribution they have is yet to be established.

It is necessary therefore, to see the relative importance of all these variables emerged. To achieve this next study is designed.

Method

Main objective of this study was to see the relative importance of the variables identified in above studies. It will help us to eliminate some more variables identified earlier.

Design and Sample. In this study also stimuli and design were again the students of Standard VI about whom teachers will be giving their response. It was planned to have the same subjects who participated in earlier study but we could get only 292 teachers of that study . Thirty-two new teachers joined in this study out of which 4 were females of secondary schools and 28 males belonging only to the Hindu community. Out of which 13 male teachers were from higher secondary schools and remaining 15 from secondary schools. Information about other teachers has already been given in previous study.

Procedure. This meeting was well appreciated by the investigator and individual teacher was introduced with the judgmental task in following manner . In our earlier meeting we had an extensive discussion on what are the variables teachers use in forming their expectation about students to help us in knowing how do teachers form expectation. Our discussion along with your other colleagues

helped us to identify a set of broadly 69 variables which are being presented to you with a request to read all variables carefully and rank them in order of their relative importance in the context of teachers' expectation. If you think that a particular variable contributes most in forming high expectation about a student please assign a rank of 1 and second most important variable will now get a rank of 2 and then next one 3. In similar way you are requested to go ahead up to the last variable which will get a rank of 69. You are also requested to add any new variable if it has not been incorporated. We will again request you to please go through with all the variables. Once teacher ranked these variables for the high expected students he0she was requested to apply the similar process for giving ranks to low expected students. That is, to assign a rank of 1 to that variable which contributes most in forming low expectation and go for the ranks of 2nd, 3rd and up to 69. It should be noted here that after meeting with few teachers, who participated in the study, it was realized that requesting them to rank all the 69 variables is creating problem to the teacher who is at present participating and it has impact on other teachers who are our prospective subjects. To reduce this problem we added in our request that please try to rank as many variables as you can from highest order to lowest order. It will be worthwhile mentioning here that we could not get even 10 teachers out of 324 who could give ranks to all variables in either condition.

Data Analysis. Data were subjected to the Sign test and rank order correlation analysis.

Results

Separate analyses for male and female, Hindu and Muslim, and secondary and higher secondary schools have shown no significant difference between these groups. This means that male and female Hindu as well as Muslim teachers teaching in secondary as well as higher secondary schools ranked most of these variables in similar way. Teachers teaching arts and science subjects have also shown no significant difference. A separate analysis performed on mathematics and science teachers as well as mathematics and other art teachers also did not show significant difference in their ranking. We therefore, concentrated only on overall analysis presented in Table 6. We have not presented those variables in Table 6 which had frequency of less than 10 teachers.

Table 6.Relative Preference of Variables of Teachers Expectation.

Relative Preference	Variables	N	%	N	%
		For High Expected Students		For Low Expected Students	
1.	Completion of Homework	324	100	---	---
2.	Classroom Interaction	324	100	---	---
3.	Unique and Difficult Answer	306	94.4	---	---
4.	Classroom Presentation	300	92.5	18	5.5
5.	Regularity in the Classroom	276	85.1	36	11.1
6.	Getting Model0Prize	246	75.9	18	5.5
7.	Fluent Answer in The Class	216	66	---	---
8.	Out of Course Discussion	192	59.2	42	12.9
9.	Lost Gesture in Class	180	55.5	306	94.4
10.	First Response in the Class	168	51.8	---	---
11.	Neat and Clean Work	138	42.5	12	3.7
12.	External Information	132	40.7	216	66
13.	Obedient	120	37.3	---	---
14.	Caste	120	37.3	126	38.8
15.	Occupation of Parents	120	37.3	126	38.8
16.	Good Physical Health	54	16.5	258	79.6
17.	Participation in Extra work	36	11.1	306	94.4
18.	Pretendism Nature	18	5.5	214	66.6
19.	External0Internal Complain	12	3.7	318	98.1
20.	Copying Habit	---	---	324	100
21.	Preference for Hidden Seat	---	---	204	62.9

This means that teachers of rural area form their expectation about exam performance of their students on the basis of certain variables in mostly similar manner. It was hypothesized that variables such as sex, schooling level, religion, and subject being taught will be showing their significant impact on relative importance of the variables of teachers' expectation. Analysis however, has shown that in ranking of these variables was mostly done in similar way and background variables did not make any impact on ranking the variables.

An overall analysis revealed that academic and classroom variables such as completion of home work, classroom interaction, presentation of matter in the class, regularity in the class, getting model0prize, fluent answer in the class, first response in the class, neat and clean work, lost gesture in the class, pretendism nature, and copying habit, nonacademic and outside classroom variables such as obedient and good physical health, external information , participation in extra work, and internal and external complains and social variables such as caste and parents' occupation emerged among 21 important variables teachers considered in forming their expectation about students. It is also visible that academic and classroom variables were given higher ranks for forming high expectation while nonacademic and social variables had relatively higher ranks for low expectation. Limitations of the study do not permit to take any solid stand in this regard, however.

Discussion

Present study has shown that teachers teaching in secondary schools of rural areas have mostly similar type response pattern on the role of some variables (described in Table 4) in forming their

expectation about students' performance. Background variables incorporated in the study did not show their significant impact on their response and rejected our hypothesis. One possible explanation for similar response pattern of all types of teachers may be said as an impact of social desirability effect where everyone would like to respond favorably to those variables which are socially desirable and unfavorably to those which are undesirable. We did not have any check in this study to rule out the possibility of social desirability effect but their responses to nonacademic and social variables indicate that teachers' responses were genuine without being influenced by social desirability effect and representative of teachers response truly. It implies that teachers use these characteristics in forming their expectations in real classroom settings that may have different kinds of impact on students performance (Jussim, 1989; Rosenthal & Jacobson, 1968) and behavior which calls on serious attention of behavior scientists.

Our hypothesis that background variables will make their significant impact on the response could not get support because of the nature of the problem studied. It is not being treated differently by different types of teachers. All teachers irrespective of their sex , religion, age, subject' affiliation, and school level have gone through with the same process and mostly in similar way because of similar socialisation practices. As a result these variables have not emerged as very powerful predictors. Separate analyses performed for every variable of teachers' expectation may show significant impact of background variables can not be ruled out, however.

Study has systematically shown that in process of forming expecta-

tion about students teachers considered classroom and academic variables of most importance but variables other than classroom and academics have also been taken into account. It has indicated very clearly that for proper understanding of the process of teachers' expectation about a target student only information regarding relationship of students with teacher in the classroom will not be sufficient, happenings outside the boundary of classroom are also important and relevant and teachers take into account the nonacademic and social variables while forming their expectation. Within its methodological limitation study provided sufficient base to experimentally investigate and examine the role of nonacademic and social variables on teachers' expectation about performance of students.

EXEMPLARY, NONEXEMPLARY, AND SOCIAL STATUS FACTORS OF TEACHERS' EXPECTATION

Abstract

Study was designed to know the factors which are being used by school teachers to form their expectation about exam performance of students. Three hundred and four teachers, varying in their sex, religion, and educational qualification, teaching in rural secondary schools responded to 40 variables explored in recent studies (Bhargava, 1992a, 1992b). Factor analysis has shown that teachers form their expectation on the basis of exemplary and nonexemplary behavior and social status information of the student. It has been discussed that to form expectation about exam performance of students teachers of Indian secondary schools not process only academic and classroom variables nonacademic, social, and outside classroom and school variables are taken into account in this process.

Theoretically, teachers should form their expectation about their students on the basis of test performance and classroom characteristics of the students. In the previous study it was seen that they form their expectations on the basis of nonacademic and social variables also. This finding was of exploratory and correlational nature which obviously have limited capacity of generalizability and therefore, demands extreme precaution in deriving conclusion. To put this on solid ground we opted to go for a factor analytic study to know how do and on what basis teachers form their expectations about students' performance.

Method

Sample. Subjects were 304 (Table 7) secondary school rural teachers of Bhopal, Raisen, and Vidisha districts of Madhya Pradesh, India. Initially, it was decided to have the same teachers who participated in the previous study but we could get only 189 teachers. Teachers were of three category teaching up to Standard VIII only (N = 100), Standard X (N = 94), and teaching only in Standard XI-XII (N = 110) classes. We have labeled first two categories as secondary (N = 194) and last category as higher secondary (N = 110) school teachers. Age ranged from 23 to 59 years and experience from 2 to 33 years. Teachers were male (N= 186) and female (N= 118) belonging to Hindu (N = 245), Muslim (N = 53), and other (N = 6) religions. Others were merged with Muslim in main analysis. Teachers varied in their educational qualification from High school (N=27), pre-University (N=30),

Undergraduate (N=91), Postgraduate (N=149), and Ph.D. (N=7). Number of dependents of teachers ranged from 0 to 15. It is worthwhile mentioning here that all teachers having more than 9 dependents belonged to Muslim community only.

Table 7. Showing Description of Teachers Participated in Study 3.

School Teachers	Gender		Religion		
	Male	Female	Hindu	Muslim	Others
1	52	48	79	16	5
2	56	38	70	24	nil
3	78	32	96	13	1
Total	186	118	245	53	6

Design. stumulus were their own students whom they have been teaching over years.

Procedure. Investigator appreciated teachers' voluntary participation and successive meetings. They were introduced about the background of study and requested that we are going to give you a list of variables which were identified as the variables of teachers' expectation on the basis of our last meetings with you and your other colleagues. This time we request you not to give ranks to the variables but to give your agreement0disagreement about given variable as to what extend it helps in forming expectation of teachers. We are interested in knowing your response about every variable separately. You have to give your response of agreement0disagreement on a 7-point continuous scale. It begins

with 1 and ends at 7. If you think that a given variable does not contribute at all in forming expectation of the teachers please give your response as 1 (that means you do not agree at all) but in case if you think that the given variable is being used maximum you please give response of 7 (that means you very strongly agree). Number 4 indicates neutral contribution of the variable. Rest of the numbers indicate the relative distance. You are requested to please use the entire scale. You can give your response by making a tick mark on the questionnaire we are going to give to you. Any other clarification will be welcomed at any moment. Subject was then given a copy of printed Hindi version of the questionnaire and was requested to read and respond to each variable. In investigator's presence subject completed the questionnaire and was thanked for participation in the study.

Data Analyses. Our main analysis in this study was only factor analysis using principal component method with varimax rotation.

Results

Table 8 shows the mean and standard deviation of all 44 variables incorporated in this study. It is visible that variables reported in earlier study are getting weight. Mean values show that teachers assigned higher weightage to those variables which had higher ranks for high expected students (HES) in the previous study.

Table 8.Showing Mean and Standard Deviation of All Variables.
(N=304)

Variables		Mean	Standard Deviation (SD)
V1	Hard work	6.05	1.21
V2	Respect for teachers	5.36	1.40
V3	Interest in study	5.69	1.44
V4	Effect of last schooling	4.63	1.78
V5	Member of large family	3.27	1.52
V6	Attention in class	5.27	1.46
V7	UchCha Vansha	3.98	1.56
V8	Emotional	3.89	1.45
V9	Classroom answer pattern	5.11	1.32
V10	Caste	3.98	1.51
V11	Parents Education	5.12	1.56
V12	Attendance in class	5.55	1.28
V13	Private coaching	4.01	1.71
V14	Good handwriting	5.12	1.36
V15	Absence of one parent	3.80	1.47
V16	Intelligent	5.92	1.46
V17	Feeling of competition	5.19	1.52
V18	Last result	4.59	1.32
V19	Full preparation for class	5.35	1.34
V20	Regular study	5.43	1.36
V21	Faulty development	2.93	1.86
V22	Grasping capacity	5.58	1.32
V23	Inferiority Feeling	3.30	1.84
V24	Ambition	5.52	1.44
V25	Poor Economic Status	3.99	1.46
V26	Clarity	5.17	1.37
V27	Extra curricular activitie	4.16	1.53
V28	Poor health	3.39	1.81
V29	Well behaved	4.70	1.42
V30	Affection of other teacher	4.97	1.39
V31	Parents occupation	4.51	1.40
V32	Passive towards study	3.46	1.94
V33	Curiosity	5.70	1.20
V34	Creativity	5.34	1.34
V35	Self confidence	5.73	1.34
V36	Friendship of good student	5.31	1.37
V37	Excited	3.52	1.66
V38	Class discussion	4.99	1.47
V39	Talkative	3.74	1.78
V40	Dress	4.02	1.52
V41	Good Result	5.42	1.26
V42	Polite	5.47	1.32
V43	Discipline	5.68	1.27
V44	Homework Punctuality	5.53	1.45

Table 9. Showing Factor loadings, Eigen values and Pct. of Variance On Each Factor Emerged.

2

		FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FAC
V43	.79842									
V42	.73860									
V41	.71632									
V44	.69851									
V36	.51840									
V35	.51626									
V12	.46216									
V38	.44854									
V16		.64156								
V13		.58861								
V11		.51814								
V1		.40891								
V23			.75907							
V32			.73882							
V21			.71799							
V28			.66365							
V25			.39082							
V15			.37368							
V24				.73319						
V33				.71510						
V34				.46694						
V17				.41279						
V22				.40050						
V26				.39638						
V20					.74571					
V19					.69206					
V6					.46925					
V31						.69466				
V9						.55838				
V14						.40851				
V2							.72257			
V3							.59883			
V8								.74934		
V37								.65140		
V4								.49112		
V39									.76104	
V40									.53380	
V27									.45629	
V7										.69
V10										.64
V18										.53
V29										
V30										
V5										
Eigen value	10.30804	3.71301	2.36217	1.99423	1.47456	1.35084	1.26859	1.20130	1.12008	1.0
Pct of Var	23.4	8.4	5.4	4.5	3.4	3.1	2.9	2.7	2.5	2.5

After examining the correlation matrix (Appendix A) factor analysis was performed. It revealed 11 factors presented in Table 9 which had eigen value more than 1.00 explaining 63.5 % of variance. On the basis of this analysis it can be said that rural teachers of secondary schools form their expectations about the performance of their students on the basis of ideal, studious, undesirable, and achievement behavior, study habit, expression skill, respect for teachers, temperament, personality, social status, and behavioral skills of the student.

First factor had an eigen value of 10.31 and explained 23.40% of variance. Variables like discipline (.79), politeness (.73), good result (.71), timely home work .69), friendship with good students (.51), self confidence (.51), class attendance (.46), and discussion in the class (.44) were clumped in this factor. All these characteristics seem to be the characteristics of an ideal student and therefore, naming it as ideal behavior is suited.

Second factor had an eigen value of 3.71 explained 8.40% of variance. Factor loading shows that it constitutes within itself variables like intellectuality (.64), private coaching (.58), parents' education (.51), and hard work (40). Two variables are the parts of student and two are related with parents. Studious behavior fits appropriate name for this factor.

Third factor had an eigen value of 2.36 and explained 5.40% of variance. Its' loading shows that variables like inferiority complex (.75), passivity towards study (.73), faulty socialization (.71), poor health (.66), poor economic status (.39), and absence of one in parents (.37) were clumped within this. These variables under normal situations do not facilitate class and exam perform-

ance and therefore, naming it as undesirable behavior fits appropriate.

Fourth factor had eigen value of 1.99 explaining 4.50% of variance. Variables like ambition (.73), curiosity (.71), creativity (.46), competition feeling (.41), grasping capacity (.40), and clear understanding (.39) are falling within this. Achievement behavior will be suitable name here to represent all in one.

Fifth factor explained 3.40% of variance and had an eigen value of 1.47. Within this variables like preparation for the class (.74), regular study (.69), and attention in class (.46) were loaded. All these variables are the behavioral indicators of students usually doing well in the classroom and exam performance. Naming it as study habit seems suitable here.

Sixth factor had eigen value of 1.35 explaining 3.10% of variance. We named this factor as expression skill because it has shown high factor loading with variables like profession of parents (.69), response pattern in the class (.55), and good hand writing (.40).

Seventh factor explained 2.90% of variance. It had an eigen value of 1.27. Two variables namely respect for teachers (.72) and interest in study (.59) had high factor loading within this. It seems reasonable to name it as respect for teachers.

Eighth factor had an eigen value of 1.2 and explained 2.70% of variance. Factor loading of variables like emotionality (.74), excited (.65), and effect of last schooling (.49) provide a base to name it as temperament.

Ninth factor explained 2.50% of variance. It had an eigen value of 1.1. It clumped variables like talkative (.76), dress (.53), and involvement on extra curriculum activities (.45). We are comfortable naming it as a personality factor.

Tenth factor had an eigen value of 1.09 explaining 2.50% of variance. Variables like blue blood or Uchcha Vansha (.69), caste (.64), and last result (.53) had high factor loadings. Naming it as a social seems suitable here, at this stage.

Last factor had an eigen value of 1.04 explaining 2.40% of variance. Well behaved (.71) and affection of other teachers (.36) were the variables which had high factor loadings. Behavioral skills best fits as a proper naming.

Above factor analysis helped identifying factors of teachers' expectation. It seems however, that the number of factors are still many and most of them theoretically appear to be correlated. To reduce this we opted for 2nd order factor analysis on these 11 factors which revealed three main factors namely exemplary, nonexemplary behavior, and social status explaining 62.9% of variance presented in Table 10.

Table 10. Showing Factor loadings, Eigen value and Pct. of Variance On Each Factor Emerged from Second Order Factor Analysis.

	FACTOR 1	FACTOR 2	FACTOR 3
FAC5	.83786		
FAC2	.82548		
FAC4	.80289		
FAC1	.80135		
FAC6	.72360		
FAC7	.63067		
FAC3		.85996	
FAC8		.71660	
FAC10			.75303
FAC9			.63361
FAC11			.54413
Eigen-value	4.14714	1.67967	1.08928
Pct of Var	37.7	15.3	9.9
LABELS	EXEMPLARY BEHAVIOR	NONEXEMPLARY BEHAVIOR	SOCIAL STATUS

.pa

First factor had an eigen value of 4.14 and explained 37.70% variance. High loadings within this factor were on variables as study habit (.83), studious behavior (.82), achievement behavior (.80), ideal behavior (.80), expression skill (.72), and respect for

teacher (.63). It seems that exemplary behavior would be an appropriate naming and relatively less value loaded to incorporate all within itself.

Second factor explained 15.9% of variance. It had an eigen value of 1.67. Undesirable behavior (.85) and emotionality (.71) had high factor loadings within this. It seems reasonable to name it as a nonexemplary behavior.

The last factor had an eigen value of 1.08. It explained 9.9% of variance. Three factors of the first order factor analysis namely social (.75), personality (.63), and behavioral skill (.54) had high factor loadings within this. Social status is relevant naming to incorporate all.

Thus, second order factor analysis helped reducing 11 factors to 3. Now it can be said that rural teachers of secondary schools form their expectations about the performance of their students on the basis of exemplary and nonexemplary behavior of the students and their social status information.

Discussion

Study demonstrated that those variables which had high ranks for HES in our previous study have fallen in 1st factor and similarly variables which had high ranks for low expected students have fallen in 2nd factor. This has shown that noninterval data of a systematic study are not less powerful.

Exemplary characteristics obtained high factor loading in comparison to other two factors. It indicated that our teachers expect from their students to have all those characteristics which are exemplary in nature. It also indicateD that presence of nonexemplary characteristics is not expected from all students.

Social status indicated that teachers' expectation about the exam

performance is also related with external environment of the classroom and schools. It helps teachers in getting additional information about students. Emergence of social status as a factor of teachers' expectation alarms us about many unanticipated social problems related with classroom management.

General Discussion

Main objective of this study was to know how do rural teachers of secondary schools form expectations about their students performance. Analyses have shown that teachers use exemplary and nonexemplary behavior and social status information in forming expectation about the performance of their students.

If we look at our socialization processes and practices it becomes clearer that we encourage and reward to those behaviors of our children which are exemplary in nature and socially demanding. It is obvious therefore, to form high expectation about a student who has these characteristics by any kind of teacher. The data deal only with rural teachers but similar response is expected from any teaching community in India. Like exemplary behavior no background variable has shown its significant main effect on nonexemplary behavior.

Question which obviously comes is why do teachers consider these characteristics into account while forming their expectations when a student can even perform well without having these characteristics also. Experiences of these teachers and their observations that a student having nonexemplary characteristics can not cope with the increasing demands of the present courses and schools might have played significant role to influence their response. One can meet these demands provided has the exemplary characteristics may be the believe pattern of these teachers also can not be

ruled out.

Question which again comes is that why do teachers use social status information while forming their expectations about the exam performance of students . Does it reflect their biases and prejudices towards students varying in their social status which they might be using in practice? Due to lack of primary data we would like to answer here simply no. It only reflected teachers' use of information about students' life outside the classroom boundary in the process of forming their expectations. It actually helps a teacher to get an additional information about a student. Once teachers have an additional information about a student it will automatically be processed while giving their judgment and decision (Singh & Bhargava, 1985, 1986). Students varying in their social status also vary in the degree of their informal interaction with their teachers outside the boundary of the school can not be ruled out.

Present study supported our earlier finding that teachers do not form their expectations only on the basis of classroom and academic variables. Other variables are also being taken into account in this process.

Thus it can be concluded that different kinds of students' characteristics such as intellectual, academic, behavioral, physical, personal, and social play important role in the process of forming expectations about students. Theoretically, an intelligent and hard working student of the class, irrespective of any other characteristics, should be treated as a HES by all teachers. That is teachers' background, demographic, personal, physical, behavioral, and social variation should not make any kind of impact on such kind of judgment. But social reality shows clearly that all

teachers always do not expect from a hard working and an intelligent student to do well in the exam because additional characteristics and information about students are also being taken into account and processed to reach on a judgment (Singh, Bhargava, & Norman,1987).

Major findings of this study can be summarized that teachers form their expectations on the basis of not only one factor. A number of factors coact together which help a teacher to form either positive or negative expectation about a student. It is not only academic characteristics which are being taken into account to form expectation other nonacademic characteristics are also being considered in formation of expectation process. Students' social status also plays an important role in forming expectation about the students by the teachers. Teachers assign higher weightage to the classroom factors in forming high expectation and outside classroom factors for forming low expectation. It can be suggested on the basis of present study that teachers of rural areas of India form their expectation on the basis of student's exemplary and nonexemplary characteristics and social status information of the student. It can be further examined that are exemplary characteristics being used to form only high expectations and nonexemplary characteristics to form negative expectations about the student. To understand the process of student teacher relationship present study has made a significant contribution. Implication of the study can be best used in the area of classroom management and students performance. In classroom management it is relevant because students' knowledge about teachers' expectation has positive as well as negative effects. Information of teachers' leveling may deteriorate students' original performance, if it is below

students expectation.

In case if it is above students' expectation he0she would like to put more efforts to meet that and failure may turn out because of the anxiety of high expectation made by the teachers. Therefore, there is need of having extreme degree of caution. Policy makers may incorporate these suggestions in long perspectives. Study has limitations of not having proper representation of teachers' population and it is suggested that proper representation of all teachers and incorporating students sample would have increased the merit of the study. A study manipulating expectation level of teachers in actual field may be of help to substantiate the findings of this study.

Effect of Background, Social, and Psychological Variables on Factors of Teachers' Expectation.

Method

Subjects. The proposed design for the selection of the subjects was a 3x3x2x2x2 (Setting of the School x Subjects being Taught by the Teacher X Sex X Class X Experience) factorial. Three levels of setting were Rural, Semi urban, and Urban; Three levels of subjects were Arts, Mathematics, and Science; two levels of sex were Male and Female; two levels of class were Below Higher Secondary and Above Higher Secondary; and two levels of experience were Senior and Junior. It had been proposed that in each cell there will be around 10 subjects constituting to a total of 720 subjects. But due to some reasons NCERT, New Delhi ordered* us to drop the three levels of the first factor and advice to concentrate only on rural teachers. Keeping its order in background our focus centered only on the attributional analysis of teacher expectation in rural secondary school. Finally 386 teachers participated in the study. They varied in their age from 23 to 59 having experience of 2 years to 33 years. Final study was conducted on 304 subjects. It was not possible to have equal N in each cell therefore, analyses for unequal N was done with a default command in the new version of SPSSPC+.

It should also be noted here that teachers were of three category. First was of the teachers teaching up to Standard VIII only. Second category was of the teachers teaching up to Standard X. The final category was of those category who are teaching in Standard XI and XII only. In our further analysis we have called first two categories as teachers of secondary schools and last category as

* (NCERT, NEW DELHI No. 2-4/88/ERIC-/3220 of August 4, 1988).

higher secondary. This classification has not been used, in fact, for any analysis as the main effect of school level was not found significant on any of our measures.

Background Information

Sex and Religion. There were 186 male 118 female teachers teaching in three category of schools described above in the final study which is going to be taken into account now. Similarly there were 245 Hindu 53 Muslim , and 6 others.

Dependents. Table 9 gives information about the number of teachers who have number of dependents. It is coming out very clearly that majority of teachers are having 3 and 4 dependents. It also gives us information about teachers who do not have any dependent under custody. The number of teachers having dependents of more than 9 are not many. It should be mentioned here that all the 8 teachers who have dependents more than 9 are Muslim.

Table 11. Showing Frequency of the Dependents of Teachers.

# of dependents3	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	3 6	5	11	18	23	12	9	5	7	1	-	-	1	-	1	1
2	313	10	12	15	15	7	14	4	2	1	1	-	-	-	-	-
3	323	6	8	15	22	14	14	5	1	1	-	1	-	-	-	-
Total	42	21	31	48	60	33	37	14	10	3	1	1	1	-	1	1

Education. Table 12 gives information about the educational qualification of the participants. It shows that our majority of teachers have postgraduate and graduate degree. This is in line of secondary school survey made by Singh (1983). It has become difficult to get teachers without having B. Ed.ØM.Ed. degree.

Table 12. Showing # of Cases at Various Levels of Education.

Category	HS	INTERMEDIATE	B A	M A	Ph.D
1	20	19	43	17	1
2	7	10	35	40	2
3	0	1	13	92	4
Total	27	30	91	149	7
%	8.9	9.9	29.9	49	2.3

Type of Relationship with Students and Satisfaction With Service.

Two points have clearly emerged from this study. First is that around 45% teachers of secondary schools have shown their satisfaction with the service against 14% dissatisfied teachers and 44% teachers have shown their average response on this item. Detailed description is shown in Table 11.

Second is that perceived teacher student relationship is not bad. Around 10% teachers perceived it in negative side against 28% in the positive side. Rest of the teachers are falling in the category of middle one. Separate analysis on effect of teachers' expectation on students' performance and on these 3 factors emerged from factor analysis did not show significant effect of these two variables.

Table 13. Showing # of Teachers at Various Levels of Satisfaction with Service and Type of Their Relationship with Students.

2

School Teachers	Satisfaction with Service								Type of Relationship								Teacher Expectancy score							
	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
1	5	3	3	6	42	21	5	15	1	2	0	4	52	7	25	9	0	0	1	1	20	38	26	14
2	1	5	5	9	37	21	5	11	0	1	4	8	50	27	4	0	2	1	3	3	21	29	20	15
3	7	4	1	3	40	27	13	15	1	0	3	5	78	18	5	0	4	1	1	5	30	35	20	14

Note: 0 refers to the no response by the teachers.

2 Income Satisfaction. Not less important is another psychological variable that is the satisfaction with the income. As can be seen from Table 14 shows that 55% of the teachers are satisfied with their income while 45% are dissatisfied. It has emerged as an important variable to explain exemplary factor. Those who are satisfied with their income have given lesser weight to the characteristics related to the exemplary behavior than those who are dissatisfied with their income. In other words it can also be said that those who are dissatisfied with their income have given more weightage to the exemplary behavior than their counterpart.

Table 14. Showing # of Cases and Their Level of Satisfaction with Income.

Category	YES	NO	NOT RESPONDED
1	54	46	0
2	38	56	0
3	75	33	2
Total	167	135	2

Desire to Change Job. A careful observation of Table 15 has shown that 33% of the teachers have shown their desire to change the job against 48% who do not have desire to change the job. A separate analysis has shown that this state of the teacher does not make any impact on their response pattern on different measures of the study. T test applied to see the difference between these two groups has not shown any significant effect on either of the three factors or on their perception of the effect of teachers' expectation on students' performance.

Table 15.Showing Number of Teachers Who Desired to change Job.

Category	YES	NO	NOT RESPONDED
1	22	50	28
2	40	57	7
3	39	58	13
Total	101	145	48

Teacher Expectancy and Student Performance

Descriptive analysis presented in Table 16 shows a clear impact of teachers' expectation on students performance. It was found that only 5.4% teachers did not perceive that it leads to students' performance. Twenty three point eight (23.8) percentage teachers perceived its average impact while 70.8% teachers perceived that it has a very high impact. It can thus be said that teachers perceived significant impact of teachers expectation on students performance in present study.

Table 16. Impact of Teachers' Expectation on Students Performance.

	Rating Scale							
	1	2	3	4	5	6	7	0
	Percentage of Teachers Under every Number							
All	.7	1.6	3.0	23.4	33.6	21.7	14.1	2.0
Primary Teachers	-	1.0	1.0	20.0	38.0	26.0	14.0	-
Secondary Teachers	1.1	3.2	3.2	22.3	30.9	21.3	16.0	2.1
Higher Secondary	.9	.9	4.5	27.3	31.8	18.2	12.7	3.6

Note: 0 refers to the no response by the teachers.

Our hypothesis that background variables will make their significant impact on the response could not get support because of the nature of the problem studied. It is not being treated differently by different types of teachers. All teachers irrespective of their sex , religion, age, subject' affiliation, and school level go through with the same process in mostly similar way. As a result these variables have not emerged as very powerful predictors.

Main Effects

Type of School. It was one of the important variable in this study. ANOVA has shown a non-significant main effect of this variable, F (2,277)=0.804 where all primary (M=5.35), secondary (5.11), and higher secondary (M=5.03) school teachers have perceived impact of teachers' expectation on students' performance in similar way.

Experience. In initial design we wanted to analyze data on the basis of senior and junior but this distinction was not very simple. Therefore, we relied on age as main point of categorization. Teachers were classified in 4 categories up to 30 years, 30-40, 40-50, and 50 and above. Main effect of this variable again did not emerge as a significant one, F (3, 277) =1.76. Separate analysis based on level of schooling did not show any different trend.

Sex. Male (M=5.18) and female (M=5.12) mostly perceived in identical manner and its main effect was also not significant, F (1,277) = 1.46.

Faculty. Main effect of subject being taught was found to be significant, F (2,295) =2.98, P<.05. Art teachers (M=5.22) in comparison to science (M=4.86) and math (M=5.10) responded in more positive way than the science and math teachers. In the separate analysis on the bias of school level it was significant only at secondary level, F (2,91) = 3.14, P<.05. Though, on ranking the variables teachers teaching arts and science, mathematics and science, and mathematics and other art teachers did not show significant difference in their ranking, it is an important finding. Main effects of religion and education also were not found significant.

Satisfaction from Income. Main effect of this variable was found significant, F (1, 277) = 6.01, P<.01. Satisfied group perceived more impact of teacher expectation on students performance than its counterpart. This trend was similar at all level of teachers, as the main effect was not significant at any level in the separate analysis.

Discussion

This means that teachers of rural area form their expectation about the exam performance of their students in mostly similar manner.

Background variables such as sex, schooling level, religion ,and subject being taught did not make any impact on their perception and ranking the variables of teachers' expectation as was hypothesised. Psychological state of the teacher has shown its impact and is justified. A response of satisfied person on any issue will be different from its counterpart.

One possible explanation for similar response pattern of all types of teachers may be said as an impact of social desirability where everyone would like to respond favorably to those variables which are socially desirable and unfavorably to those which are undesirable for the classroom performance of the student. We do not have any check to rule out the possibility of social desirability effect. Even other results in favor of those variables which are social or outside classroom indicate that teachers responses were genuine without being influenced by social desirability effect. For that matter even present problem in itself is so value loaded that nobody would like to rule out the effect of teachers' influence on students' development. So it can be said that those variables which were rated highly by teachers for HES are being used to form high expectations and similarly those variables which had high ranking for LES are not liked by teachers to be present in the good students.

Background Variables and Factors of Teacher Expectation

Three factors emerged in the study now became the factors through which teachers form their expectation about students performance. We therefore, merged the scores of all the variables falling in the category of these factors. It helped having three data sets for all subjects.

A T test performed for exemplary behavior, nonexemplary behavior,

and social status factor. Variables such as sex (male = 140.13, 33.23, 34.16 and female 139.20, 32.43, 34.10), educational qualification (high school = 136.22, 31.11, 32.29 and postgraduate = 139.65, 33.32, 33.44), satisfaction with service (s = 141.99, 32.66, 33.61 and d = 139.89, 32.82, 35.48), and desire to change job (y = 137.35, 33.56, 33.60 and n = 142.13, 32.92, 34.82) could not show their impact. However, level of satisfaction with income (satisfied = 142.17, 33.04, 34.01 and dissatisfied = 136.54, 32.82, 34.20) t = 2.29, p.>.02 has shown its impact. One way ANOVA on age, dependents, salary, and subject of the teacher has also not shown any significant main effect. To see the interaction effects we went for further analysis but no interaction effect emerged as significant. In bracket three mean values are respectively for the exemplary, nonexemplary and social status factors. The trend seems similar across all. Only deviation from this trend was found in case of social status factor where teachers who were high on experience and low on education differed from the fresh and M.A. teachers. It is novel and important finding having its implications for social change.

It can be concluded on the basis of this study that teachers of seconadary schools did not use only classroom and performance related variables in forming their expectations social and personal variables were also used. This means that teachers' expectation is not based only on the performance related variables other variables do contribute in this process where exemplary characteristics, nonexemplary characteristics, and social status information of the students are taken into account. It can be suggested that exemplary characteristics are used forming high expectation about the student while nonexemplary characteristics to form low expectations about the students. Social status be used for both depending upon the situation and background of the teacher. Our hypothesis that background variables will make their significant impact on the response could not get support becasue of the nature of the problem studied. Psychological state of the teacher emerged as an important in this context. Young teachers who are fresh in their service and have higher in educational qualification in this study have given less weight to the social status as a factor of teachers' expectation than their counterparts reflected that belief of younger teachers is different from the older people. Consistency of the variables across studies has shown that a systematic study conducted even on small sample have power in itself. Differential treatment of teachers with students can not be answered within the framework of this study. However, students awareness about teacher expectation can be answered affirmatively. In fact we encourage and reward to those behaviors of our children which are exemplary and socially appreciated. It is natural therefore, to form high expectation about a student who has these char-

acteristics by any kind of teacher. Although data incorporate only rural teachers but similar response is expected from any teaching community in India. Findings of this study are useful in dealing with problems related to classroom management and may also help minimizing some of the problems of deviated students. To strengthen the findings of the study on solid ground representation of a larger teachers population is recommended.

This project was not centered around the controversy associated with SFP but on an issue that a student may sometime suffer because the teacher has expected from him0her otherwise. It may not hold true with all and always but its has implications even if it has its impact on very small percentage of students and sometime. A psychological feeling of being expected otherwise by the teacher in the mind of student, particularly under low expectation condition, deteriorates the motivation as well as achievement and also suppresses self concept. It was necessary therefore, to identify the factors which are associated with the teachers´ expectations. This will help understanding several questions related to students-teacher relationship and students´ achievement.

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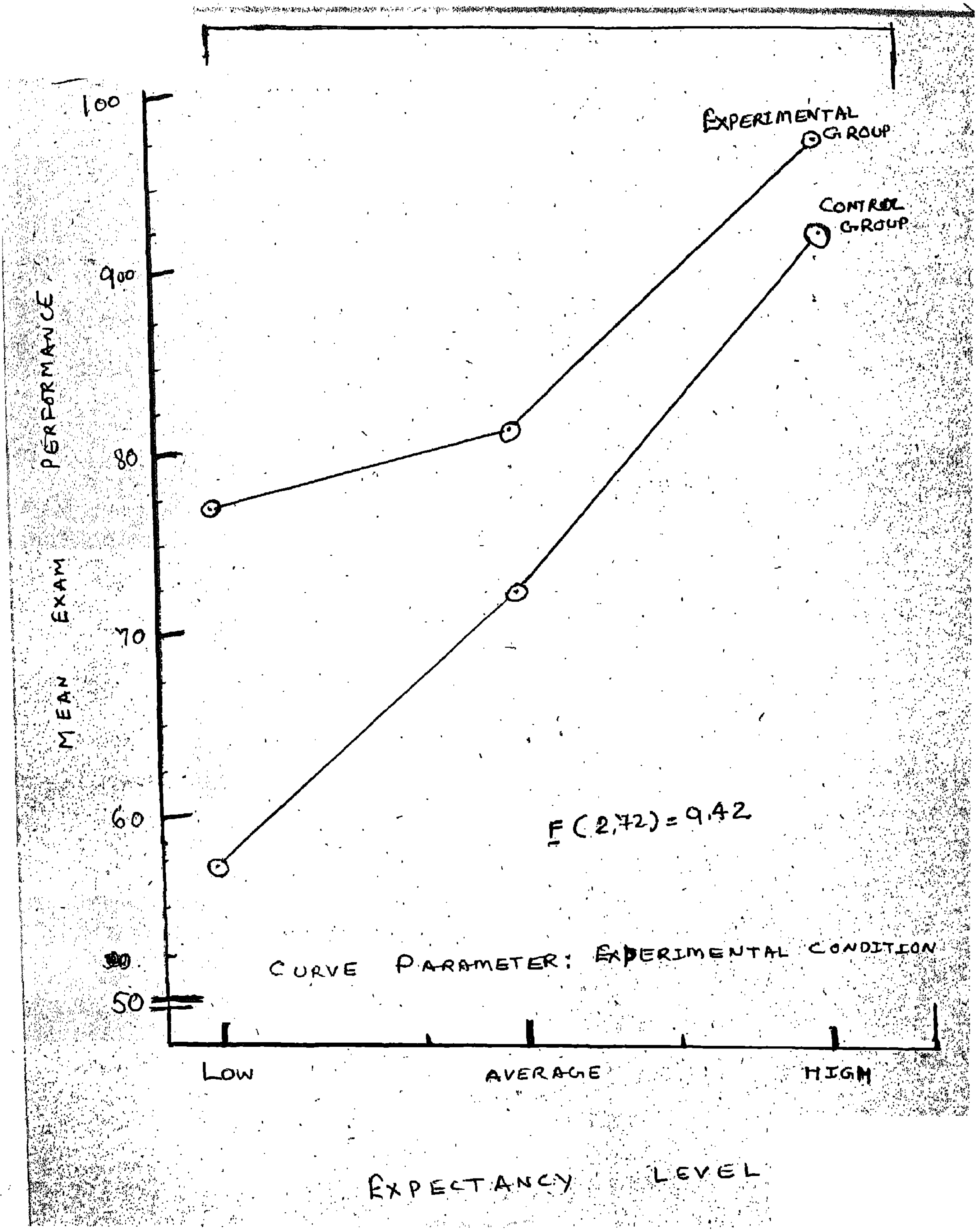
100
900
80
70
60
50
50
MEAN EXAM PERFORMANCE
EXPERIMENTAL GROUP
CONTROL GROUP
F (2,72) = 9.42
CURVE PARAMETER: EXPERIMENTAL CONDITION
LOW
AVERAGE
HIGH
EXPECTANCY LEVEL

Appendix A

Correlation Matrix for the 44 Variables Used in Study.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	2
1	-																			
2	22	-																		
3	47	42	-																	
4	23	19	31	-																
5	-15	00	09	-00	-															
6	24	28	46	23	00	—														
7	10	16	17	12	-09	14	-													
8	00	16	04	24	13	-07	09	-												
9	34	25	46	17	-20	30	10	-00	-											
10	04	03	06	-00	-01	-12	33	10	06	-										
11	34	10	38	30	-32	29	24	-01	49	05	-									
12	34	28	42	28	-16	36	09	08	33	-04	51	-								
13	28	13	32	22	-17	23	28	-06	29	09	41	29	-							
14	28	26	46	20	-14	33	16	02	51	03	44	43	33	-						
15	04	07	14	20	04	09	12	08	25	02	28	23	21	22	-					
16	40	09	45	25	-25	33	18	-06	4[illegible]	06	49	39	43	38	21	—				
17	20	-04	18	08	-13	19	13	-09	29	-00	32	21	20	19	18	38	-			
18	07	18	16	13	-06	15	21	21	24	17	20	17	18	30	11	08	14	-		
19	33	27	38	13	-15	45	06	01	37	-07	24	43	24	37	05	31	30	26	-	
20	32	11	29	18	-02	43	08	04	26	-08	32	38	23	29	15	33	37	20	5	
21	-16	-03	-01	13	03	-05	-10	02	-00	-14	03	00	-04	-08	15	-04	07	01		

N=306 Decimals are omitted.

07	-																		
39	-11	-																	
09	33	00	-																
42	-05	40	-06	-															
06	14	09	24	-12	-														
05	37	05	29	-13	26	-													
30	-12	23	-03	20	08	00	-												
22	-06	16	00	26	17	03	34	-											
10	-05	13	06	21	14	07	17	21	-										
08	48	-08	28	-10	23	51	-01	01	00	-									
43	00	51	08	39	03	-02	33	25	15	04	-								
31	-04	34	06	30	19	06	30	30	29	-03	46	-							
43	01	42	-06	38	-01	-06	28	32	20	-05	55	53	-						
47	06	30	14	29	16	14	20	28	31	09	30	35	48	-					
13	38	-10	30	-23	32	23	04	04	08	36	-05	03	00	05	-				
34	05	33	-13	28	-00	-12	39	14	13	05	33	30	47	33	08	-			
19	15	-12	27	-14	31	28	-03	10	05	17	09	-09	-26	13	25	-20	-		
16	02	13	13	11	04	-03	11	28	20	-05	06	16	12	21	03	10	26	-	
37	02	46	-04	38	09	-01	23	30	25	06	36	34	46	44	07	39	03	32	-
27	00	22	07	37	15	03	34	35	21	05	40	40	48	45	03	34	00	25	56
33	03	35	-06	30	09	-01	36	30	24	01	39	41	57	46	03	44	12	22	57
36	05	40	-07	32	01	01	23	29	14	07	35	33	56	41	09	44	20	15	53

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